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10/785,063	02/25/2004	Tomohisa Higuchi	249256US6X	8923

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EXAMINER
WALTER, CRAIG E

ART UNIT	PAPER NUMBER
2188	

NOTIFICATION DATE	DELIVERY MODE
11/28/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/785,063	HIGUCHI, TOMOHISA
	Examiner	Art Unit	
	Craig E. Walter	2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _23 October 2007_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-7,9,10,12-15,17 and 18_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-7,9,10,12-15,17 and 18_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 October 2007 has been entered.

Status of Claims

2.   Claims 1-7, 9, 10, 12-15, 17, and 18 are pending in the Application.

Claims 1, 2, 9, 10, 12, 15, 17, and 18 have been amended.

Claims 8, 11, 16, and 19 are cancelled.

Claims 1-7, 9, 10, 12-15, 17, and 18 are rejected.

Response to Amendment

3.   Applicant's amendments and arguments filed on 23 October 2007 in response to the office action mailed on 13 September 2007 have been fully considered, but they are not persuasive. Therefore, the rejections made in the previous office action are maintained, and restated below, with changes as needed to address the amendments.

Claim Objections

4.   Claims 1-7, 9, 10, 12-15, 17, and 18 are objected to because of the following

informalities:

As for claims 1, 9, 10, 12, 17, and 18, acronyms (such as IC) should not

be used to abbreviate key terms or phrases unless the acronym is previously

written in its expanded form. An acceptable correction would be --non-contact

type Integrated Circuit (IC)--

All remaining claims are objected to for further inheriting the deficiencies

each of their respective base claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

5.   Claims 1-7, 9, 10, 12-15, 17, and 18 rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

As for claim 1, the phrases, "[a]n information processing apparatus having

embedded therein a non-contact type IC" and "said non-contact type IC including a

memory, a memory control unit, and an antenna that are **independent of the**

information processing apparatus" (emphasis added) in combination, render the

claim indefinite. More specifically, it is unclear and ambiguous how the constituent

elements of the IC card (which is *embedded* within the information processing

apparatus) can be *independent* of the information processing apparatus. In other

words, if they are independent, how can they also be embedded, and vise-versa?

These terms seem to indicate two mutually exclusive configurations. Referring to

Applicant's Fig. 2, it would appear that the apparatus (element 1) and the IC card

(element 2) are "independent" because said apparatus comprises a superset of

elements as compared with said IC card. Examiner will therefore interrupt elements of

the IC card as being "independent" of the apparatus to mean part of the apparatus, but

not exclusively the only critical elements of the apparatus. This interpretation is

consistent with Fig. 2 of Application original specification.

A similar rejection applies to the remaining base claims.

All remaining dependant claims are rejected for further inheriting the deficiencies

each of their respective base claims.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1, 5, 9, 10, 12, 17, and 18 are rejected under 35 U.S.C. 102(b) as being

anticipated by Kobayashi (US Patent 5,378,887).

As for claims 1, 9 and 10 Kobayashi teaches an information processing

apparatus (Fig. 2 – all elements (e.g. elements 10, 12, 14, 22, etc.)), (method and

medium) having embedded therein a non-contact type IC (Fig. 2, element 16 (also

depicted in Fig. 5 as elements 32, 34, 36, 38, and 40)), the information processing

apparatus comprising:

communicating means for communicating data with said non-contact type

IC via data lines, the non-contact type IC including a memory (Fig. 5, element

321/322), a memory control unit (Fig. 5, element 36), and an antenna (Fig. 5,

element 40) that are independent of the information processing apparatus

(referring to Fig. 5, the data path (e.g. data lines) connecting elements 32 to 34

and 34 to 36 (not labeled) comprise the data lines, whereas the read area

deciding section communicates data via the data lines, hence it comprises the

communication means; the memory may be accessed (i.e. read) by the memory

control section via the read area deciding section – col. 7, line 62 through col. 8,

line 11. Since Kobayashi's information processing apparatus and IC card are not

the same unit, the elements contained within the IC card are "independent" of the

information apparatus. This interpretation is consistent with Applicant's Fig. 2

(apparatus illustrated as element 1, and the non-contact IC is depicted as

element 2));

detecting means for detecting any access to said non-contact type IC (Fig.

5, element 36 – the memory control section controls access to and from the

memory, therefore it is capable of detecting when the memory is being accessed

– col. 7, line 63 through col. 8, line 11);

determining means for determining whether a result of detection by said

detecting means indicates internal access by said communicating means of the

information processing apparatus or external access from an external apparatus

external to the information processing apparatus (access can occur from a write

operation via the external device (referring to Fig. 5, the external device

communicates with the IC card via the non contact terminal (40), to the

modulating and demodulating section (38), to the memory control section (36) –

col. 7, line 63 through col. 8, line 17). Additionally, the access could be simply

result from reading the memory via the read area deciding section - col. 7, line 63

through col. 8, line 11). Note the memory control section is capable of making a

determination of where the access is coming from – more specifically, the read

area deciding section is used to decide which area of the memory 32 should be

accessed. In order for the system to function properly, the read area deciding

section must compare the numbers recorded in each respective area in of the

memory (either 321 or 322), and make a determination based on this information

which area should be selected. This information is then sent to the memory

control section - col. 8, lines 63 through col. 9, line 7. Kobayashi clearly sets

forth the read area deciding section as accessing the memory sections to make

this determination (to compare the numbers read from each respective section),

therefore he does teach an "internal access" (i.e. accessing includes both writing

to, and *reading from*, a memory). Kobayashi's memory control section clearly

can determine if the memory access occurs from the external apparatus (the

thrust of the invention is directed to preventing and allowing re-access from the

external source), and clearly it can determine the occurrence of an internal

access (i.e. the data coming from the read area deciding section is a result of

internal access once it receives the critical information on the memory areas);

and

access controlling means for controlling the external access from said

external apparatus when said determining means determines that the result of

detection by said detecting means indicates the external access from said

external apparatus (col. 2, line 64 through col. 3, line 11 – the system will

generate an inhibition signal to control access to the memory via the external

device for a predetermined time. The control means can decide weather or not

to permit access from the external device to the main circuit based on

frequencies of access, by using the information provided by the inhibition signal)

- the memory control section can clearly control access to the memory from the

external apparatus via the re-access circuitry, Kobayashi clearly teaches

controlling the external access when it is determined that the access has

occurred from the external apparatus (i.e. access cannot be controlled unless the

external apparatus is first determined be accessing the memory). Additionally

note, Kobayashi's system does not allow for the data read out of the memory

areas to be written back to the memory (rather it is used as metadata to help

control the data from the external apparatus), hence Kobayashi is controlling

access from the external apparatus via the aid of the data which was accessed

internally).

As for claims 12, 17 and 18, Kobayashi teaches the information processing apparatus (method, medium, and program) having embedded therein a separate information recording medium, comprising:

communicating means for communicating data with said non-contact type IC via data lines, the non-contact type IC including a memory (Fig. 5, element 321/322), a memory control unit (Fig. 5, element 36), and an antenna (Fig. 5, element 40) that are independent of the information processing apparatus (referring to Fig. 5, the data path (e.g. data lines) connecting elements 32 to 34 and 34 to 36 (not labeled) comprise the data lines, whereas the read area deciding section communicates data via the data lines, hence it comprises the communication means; the memory may be accessed (i.e. read) by the memory control section via the read area deciding section – col. 7, line 62 through col. 8, line 11. Since Kobayashi's information processing apparatus and IC card are not the same unit, the elements contained within the IC card are "independent" of the information apparatus. This interpretation is consistent with Applicant's Fig. 2 (apparatus illustrated as element 1, and the non-contact IC is depicted as element 2));

detecting means for detecting any access to said non-contact type IC (Fig. 5, element 36 – the memory control section controls access to and from the memory, therefore it is capable of detecting when the memory is being accessed – col. 7, line 63 through col. 8, line 11);

determining means for determining whether a result of detection by said

detecting means indicates internal access by said communicating means of the

information processing apparatus or external access from an external apparatus

external to the information processing apparatus (access can occur from a write

operation via the external device (referring to Fig. 5, the external device

communicates with the IC card via the non contact terminal (40), to the

modulating and demodulating section (38), to the memory control section (36) –

col. 7, line 63 through col. 8, line 17). Additionally, the access could be simply

result from reading the memory via the read area deciding section - col. 7, line 63

through col. 8, line 11). Note the memory control section is capable of making a

determination of where the access is coming from – more specifically, the read

area deciding section is used to decide which area of the memory 32 should be

accessed. In order for the system to function properly, the read area deciding

section must compare the numbers recorded in each respective area in of the

memory (either 321 or 322), and make a determination based on this information

which area should be selected. This information is then sent to the memory

control section - col. 8, lines 63 through col. 9, line 7. Kobayashi clearly sets

forth the read area deciding section as accessing the memory sections to make

this determination (to compare the numbers read from each respective section),

therefore he does teach an "internal access" (i.e. accessing includes both writing

to, and *reading from*, a memory). Kobayashi's memory control section clearly

can determine if the memory access occurs from the external apparatus (the

thrust of the invention is directed to preventing and allowing re-access from the external source), and clearly it can determine the occurrence of an internal access (i.e. the data coming from the read area deciding section is a result of internal access once it receives the critical information on the memory areas); and

informing means for, when said determining means determines that the result of detection by said detecting means indicates the external access from said external apparatus, notifying a user of the external access (once the circuit completes operation based on the access from the external device, an operation inhibition signal is generated to notify the system that a recent access has occurred, and the no additional access is to occur until the predetermined time elapses – col. 2, line 64 through col. 3, line 11).

As for claim 5, Kobayashi teaches informing means for, when said determining means determines that the result of detection by said detecting means indicates the external access from said external apparatus, notifying the user of the external access (once the circuit completes operation based on the access from the external device, an operation inhibition signal is generated to notify the system that a recent access has occurred, and the no additional access is to occur until the predetermined time elapses – col. 2, line 64 through col. 3, line 11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 2, 3, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Kobayashi (US Patent 5, 378,887) as applied to claims 1 and 9 above, and in

further view of Masaki et al. (US PG Publication 2002/0188852 A1), hereinafter Masaki.

        As for claims 2 and 15, though Kobayashi teaches detecting access to his non-

contact type IC, he fails to teach recording the internal or external access information as

history information on a recording medium.

        Masaki however teaches an illegal access monitoring device for an IC card,

which is used to monitor access to the IC card (paragraph 0037, all lines). Note Masaki

specifically refers to storing access information in the IC card (paragraph 0112, all

lines).

        As for claim 3, Kobayashi's system is designed such that the access controlling

means refers to the inhibition signal, rather than stored access history information in

order to control external access from the external device. Again Masaki teaches

monitoring access to the card, and storing access information in said card, which may

be referred to a later time to determine if access should be granted or denied based on

the stored access information (see the rejection of claim 2 above).

        It would have been obvious to one of ordinary skill in the art at the time of the

invention for Kobayashi to further include Masaki's illegal access monitoring device for

an IC card to his own non-contact IC card. By doing so, Kobayashi would benefit by

increasing the security and integrity of data stored within the card by preventing

unauthorized access to the memory, and further mitigating the threat of reverse

engineering as taught by Masaki in paragraph 0036, all lines.

8.   Claims 6, 7, 13, and 14 are rejected under 35 U.S.C. 103(a) as being

unpatentable over the combined teachings of Kobayashi (US Patent 5, 378,887) as

applied to claims 5 and 9 above, and in further view of Hinker et al. (US Patent

6,351,845 B1), hereinafter Hinker.

        As for claims 6, 7, 13 and 14, though the Kobayashi discloses notifying external

access to the memory, he fails to teach notifying the user of the system via a warning

display, sound, light, or vibration. He further fails to teach changing the informing

method based on access source as claimed by Applicant.

        Hinker however teaches an apparatus for analyzing memory use in which the

system visually notifies a user when particular types of memory access are occurring

within the system (see abstract). More specifically, Hinker teaches the use of different

colors to designate the specific type of memory access (i.e. red for a read operation,

and green for a write operation) – col. 8, lines 33-35.

        It would have been obvious to one of ordinary skill in the art at the time of the

invention for Kobayashi to further include Hinker's apparatus for analyzing memory use

to his own non-contact IC card. By doing so, he would benefit by having a means of

visually informing the user of his card as to how frequently the memory is being

accessed, and which access type is taking place. This in turn will help the user

understand data dependencies within the memory as taught by Hinker in col. 3, lines 4-9. This information, can in turn help a user to understand how the memory is being accessed, in order to help reduce the number of accesses, hence improving the memory's efficiency as taught by Hinker in col. 1, line 20-32.

Note that since Kobayashi's system uses the read area deciding section (Fig. 5, element 34) to read data from the memory, and utilizes a path from elements 40, 38, 36 (Fig. 5) to access the memory (32) from the external device, a read and write operation would come from a different source, just as claimed by Applicant.

Allowable Subject Matter

9.   Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The claim distinguishes over the prior art of record for the reasons made of record 13 September 2007.

Response to Arguments

10.   Applicant's arguments with respect to claims 1-7, 9, 10, 12-15, 17, and 18 have been considered but they are not persuasive.

As for claim 1, it appears Applicant's actual arguments (i.e. comparison between the instant claims and cited prior art) begin on page 11 (line 16) of the remarks. Applicant contends on page 11, line 16, "the memory, the memory control unit, and the antenna of the <u>non-contact type IC</u> are separate and independent elements from the

communicating means, detecting means, determining means, and access control means of the information processing apparatus, in which the non-contact type IC is embedded". As such, Applicant asserts "that the '887 patent fails to disclose the detecting means recited in Claim 1."

This argument however is not persuasive. As stated in the § 112(2) rejection, above, the claims require "[a]n information processing apparatus having **embedded therein a non-contact type IC**" and "said non-contact type IC including a memory, a memory control unit, and an antenna that are **independent of the information processing apparatus**" (emphasis added). These phrases, in combination, however are self-contradictory. In other words, the constituent elements of the IC card (which is *embedded* within the information processing apparatus) CANNOT be *independent* of the information processing apparatus if it is in fact embedded in the apparatus. In other words, if they are independent, how can they be embedded? These recitations seem to indicate two mutually exclusive configurations. Referring to Applicant's Fig. 2, it would appear that the apparatus (element 1) and the IC card (element 2) are independent because said apparatus comprises a superset of elements as compared with said IC card. Examiner's interpretation of these ambiguous statements is consistent with Applicant's specification. Examiner further maintains that Kobayashi renders these limitations anticipated based on Examiner's broadest reasonable interpretation of these phrases consistent with Applicant's specification, pursuant to MPEP § 2111.

Continuing on line 9 of page 12 of the remarks, Applicant's argument that Kobayshi's data lines cannot read on the recited "communication means" is rendered

moot, as Examiner no longer maps Kobayshi's data lines to Applicant's "communication means" as per the rejection *supra*.

As for Applicant's arguments beginning on the final line of page 12 through line 11 of page 13 of the remarks, it appears that Examiner and Applicant fundamentally disagree on the interpretation of Kobayshi's teachings, as very similar arguments were set forth in Applicant's remarks on 9 January 2007 (namely whether Kobayashi actually teaches "a determination of whether the access is internal or external to the IC card"). Applicant is directed to Examiner's rebuttal arguments mailed 16 April 2007 to further illustrate Examiner's interpretation of this "determining" step. Essentially, Examiner maintains that the memory control section must inherently "determine" if the data is coming from the read area deciding section or externally (via the antenna for example), else it would fail to execute its intended function.

Applicant continues on lines 11-19 of page 13 by asserting that the '877 patent fails to describe any unit that makes "a determination as to whether a particular access is internal or external". Applicant attempts to evidence this allegation by incorporating arguments once again with respect to the IC card and apparatus as being "independent" of one another. This argument is not persuasive, as Examiner has already addressed similar arguments with respect to the IC card's independence of the apparatus above.

Applicant further contends on line 20 of page 13, "the circuit 12 [of Kobayashi] does not control external access when the memory control section 36 or the read area deciding section 34 determines that the result of the detection is external access." Applicant continues, "the process is not conditioned upon the detection of whether

access is internal or external by the elements of the circuit 16, which include the

memory control section 36 and the read area deciding section 34".

This argument however is not persuasive. Again, it appears that Examiner and

Applicant fundamentally disagree on the interpretation of Kobayshi's teachings, as very

similar arguments were set forth in Applicant's remarks on 9 January 2007 (namely

whether Kobayashi actually teaches controlling external access when a determination of

external access is made). Applicant is directed to Examiner's rebuttal arguments

mailed 16 April 2007 to further illustrate Examiner's interpretation of this step.

Essentially, Examiner maintains that the memory control section clearly controls access

to the memory from the external apparatus via the re-access circuitry. Further,

Kobayashi clearly teaches controlling the external access when it is determined that the

access has occurred from the external apparatus (i.e. access cannot be controlled

unless the external apparatus is first determined be accessing the memory).

Applicant's argument that Examiner failed to provide any motivation as to why it

would have been obvious to combine the '887 patent and '852 application is not

persuasive, as Examiner maintains that an explicit motivation was set forth in the

previous Office action (page 8, paragraph 0003 – referring to paragraph 0036, all lines

of the Masaki disclosure). It is worthy to note however, that this argument as

specifically addressed for Claim 1 is rendered moot as Examiner maintains that the '887

patent anticipates claim 1.

Applicant's arguments that all remaining base claims are allowable for at least the reasons set forth in claim 1 is rendered moot, as Examiner maintains that Kobayashi renders all base claim anticipated as per the rejections and arguments above.
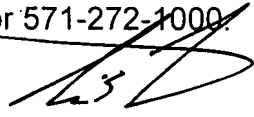
Applicant's arguments that all dependant claims are allowable for at least inheriting allegedly allowable subject matter of their respective base claims is rendered moot, as Examiner maintains that Kobayashi renders all base claim anticipated as per the rejections and arguments above.

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig E. Walter whose telephone number is (571) 272-8154. The examiner can normally be reached on 8:30a - 5:00p M-F.

12.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Craig E Walter
Examiner
Art Unit 2188

CEW

HYUNG S. SOUGH
SUPERVISORY PATENT EXAMINER

11/20/07